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ABSTRACT

A strategic plan for integrating state human resource, economic development, and job training services is intended to stimulate increased productivity within the U.S. workplace. Long-term solutions to the competitive challenges can be achieved by changing thinking and behavior of organizations. High performance businesses that have achieved excellence realize the need for these changes and share several important characteristics. These include effective leadership, strategic planning, enlightened human resource management, improved quality assurance systems, and effective information systems. State government should increase its productivity and return on investment. Governors as leaders must promote a commitment to high standards of ethical and professional conduct, efficient use of resources, cooperation and teamwork, and continuous improvement in the quality of state services. Services must be comprehensive and integrated, and complement the commitment of private resources. A strategic plan must set the goals that drive all economic and human resource development activities. An ongoing commitment to upgrade the skills of the state work force improves the quality of state services. Quality assurance techniques should be introduced, performance standards should be established, and states should develop incentives for attaining performance outcomes and sanctions for failing to meet them. Governors can take the lead in fostering a culture of excellence by strengthening state government and supporting leaders in industry, business, and education who share this vision. Recommendations for modernization, technology, financing, and employment support offer a strategic action agenda for reshaping existing state economic development and work force preparation systems. These recommendations will increase the productivity of workers and firms and maximize the return on public investment. (14 references) (NLA)

EXCELLENCE AT WORK:

A STATE ACTION AGENDA

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The National Governors' Association, founded in 1908 as the National Governors' Conference, is the instrument through which the nation's Governors collectively influence the development and implementation of national policy and apply creative leadership to state issues. The association's members are the Governors of the fifty states, the commonwealths of the Northern Mariana Islands and Puerto Rico, and the territories of American Samoa, Guam, and the Virgin Islands. The association has seven standing committees on major issues: Agriculture and Rural Development; Economic Development and Technological Innovation; Energy and Environment; Human Resources; International Trade and Foreign Relations; Justice and Public Safety; and Transportation, Commerce, and Communications. Subcommittees and task forces that focus on principal concerns of the Governors operate within this framework.

The association works closely with the administration and Congress on state-federal policy issues through its offices in the Hall of the States in Washington, D.C. The association serves as a vehicle for sharing knowledge of innovative programs among the states and provides technical assistance and consultant services to Governors on a wide range of management and policy issues.

The Center for Policy Research is the research and development arm of NGA. The center is a vehicle for sharing knowledge about innovative state activities, exploring the impact of federal initiatives on state government, and providing technical assistance to states. The center works in a number of policy fields, including agriculture, economic development, education, environment, health, social services, training and employment, trade, and transportation.

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OVERVIEW

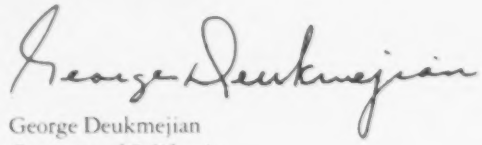
Global economic changes and national demographic trends shaping America's future ultimately converge in the American workplace. We initiated Excellence at Work to explore existing public and private sector responses to the diverse pressures affecting the U.S. economy and to recommend state strategies for helping to bring excellence to the American workplace. Our goal is to build the strong, progressive state economies essential to meeting the challenges of the next century.

The initiative assumes that stimulating economic competitiveness will require multifaceted solutions, including using technological advances, implementing more effective methods of organizing work, improving the outcomes of workforce preparation and retraining programs, and providing a more supportive work environment for workers.

Excellence at Work was a three-part effort. Our first step was to catalogue in *Excellence at Work: The Issues* the challenges affecting worker and workplace productivity. Next, based upon these issues, roundtable discussions of experts were held around the country during the summer of 1990 to assess state policy options for developing a more competitive economy. Drawing upon the expertise of business people, union representatives, educators, researchers, and state policymakers, numerous options were suggested and described in *Excellence at Work: Principles and Options for State Action.*

The recommendations that emerged from the roundtables were reviewed by the Governors' Forum on Excellence at Work, a committee composed of national business, labor, and education leaders. This third and final publication, *Excellence at Work: A State Action Agenda,* is a strategic plan for integrating state human resource, economic development, and job training services to stimulate increased productivity within the American workplace.

We hope the State Action Agenda will serve as a catalyst to bring about essential changes in the way states structure services to firms and employees to promote excellence at work. In 1991, NGA will continue to work with states as they implement the strategies we recommend in the action agenda.



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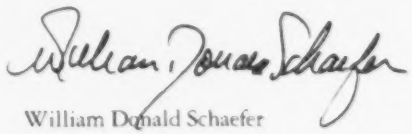
Governor of California



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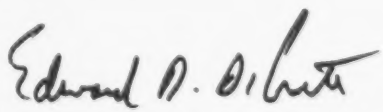


Edward D. DiPrete
Governor of Rhode Island

EXECUTIVE SUMMARY

The Governors initiated Excellence at Work to address the economic challenges facing the nation. *Excellence at Work: A State Action Agenda* suggests specific actions states can take to facilitate excellence in the workplace, both in the public and private sectors. Long-term solutions to the competitive challenges confronting the nation can be achieved only by making fundamental changes in the thinking and behavior of organizations. High-performance businesses that have achieved excellence realize the need for these changes and share several important characteristics. These include effective leadership, strategic planning, enlightened human resource management, quality assurance systems, and effective information systems.

Excellence demands that state government increase its productivity and return on investment. Governors as leaders must promote a commitment to high standards of ethical and professional conduct, efficient use of resources, cooperation and teamwork, and continuous improvement in the quality of state services. Services must be comprehensive and integrated, and managed to leverage or complement the commitment of private resources. A strategic plan must set the goals that will drive all economic and human resource development activities.

An ongoing commitment to upgrade the skills of the state workforce improves the quality of state services and serves as a lighthouse to other employers. Quality assurance techniques should be introduced, performance standards should be established, and states should develop incentives for attaining performance outcomes and sanctions for failing to meet them.

Governors can take the lead in fostering a culture of excellence by strengthening state government and supporting leaders in industry, business, and education who share this vision.

The recommendations that follow offer a strategic action agenda for reshaping existing state economic development and workforce preparation systems. The goal of these recommendations is to increase the productivity of workers and firms and maximize the return on public investment.

Modernization

To increase the percentage of U.S. firms that are high-performance work organizations characterized by quality, flexibility, and productivity, states can:

- Promote the concept of total quality and provide education and technical assistance to firms implementing quality improvement programs.
- Encourage the development of participatory workplaces.
- Develop a state delivery system that links technology, management, marketing, financing, and training assistance for small and medium-sized firms.
- Organize services for groups of firms rather than individual establishments.
- Support the creation of industry-managed intermediary organizations.
- Promote collaboration among firms.

To ensure that small firms have adequate access to information on domestic and foreign markets, states can:

- Facilitate access to market information.

Technology

To facilitate the deployment of technology and modern management practices, particularly in small and medium-sized firms, states can:

- Make technology diffusion an integral component of state development strategies.
- Link technological assistance with training, marketing, and management assistance.

Financing

To ensure the availability of capital to meet the needs of small modernizing firms; to acquire new equipment and machinery; and to invest in worker training, the development of new markets, and new systems for distribution and service, states can:

- Redirect state development financing programs to include financing for modernization efforts.
- Create new financial institutions or mechanisms to make higher risk capital available for modernization.

To ensure that the workforce development system responds to the ongoing needs of firms and workers, states can:

- Establish an ongoing dialogue with employers to define workforce competency standards that reflect the changing skill requirements of the workplace.
- Work with business to reach consensus on the skills and levels of proficiency that should be achieved by those preparing to enter the workforce and by existing workers.

To encourage firms to enhance their employee training efforts, states can:

- Provide technical assistance to businesses in planning, conducting, and evaluating retraining programs.
- Use customized training programs to provide financial incentives to companies that undertake quality work-based retraining programs on a scale and timetable that otherwise would not occur.
- Cluster the training needs of small and medium-sized firms so that the public sector can more effectively meet their needs.
- Work with employers and educators to expand opportunities for structured work-based learning.

To create an easily accessible, comprehensive service delivery system for individual workers and firms, states can:

- Promote better integration of workforce preparation services.

To ensure quality workforce preparation programs, states can:

- Establish measurable performance standards.
- Create a common framework for skill assessment within the public and private sectors.
- Use competitive contracting to stimulate improvement in service provider performance.
- Promote informed consumer choice to encourage system responsiveness and efficiency.
- Strengthen counseling, assessment, and information services.

Employment Support

To maintain the participation of employers in the health care system by ensuring access to coverage at an affordable cost, states can:

- Encourage the development of insurance and employer arrangements that facilitate the provision of employer-based health insurance.

To increase the involvement of employers in enhancing workers' access to child care services, states can:

- Develop a comprehensive child care policy for employer-sponsored child care.
- Help employers establish job-site child care centers.

To continue providing traditional worker protections to those employed under nontraditional work arrangements, states can:

- Revise labor standards policies to account for emerging employee-employer relationships.

To encourage the adoption of nontraditional work arrangements, states can:

- Develop family-responsive employment policies.

Conclusion

A world-class economy will be predicated upon a commitment by the public and private sectors to increase quality. A high-performance economy will require high-performance firms and workers. Consequently, state services must become high performance.

INTRODUCTION

The Governors are vitally concerned with the competitive economic position of their states and the nation. An examination of the competitive position of U.S. firms reveals disheartening news. Despite efforts to introduce new technologies and management practices and to upgrade the skills of workers, U.S. firms continue to lag behind many of their foreign competitors.

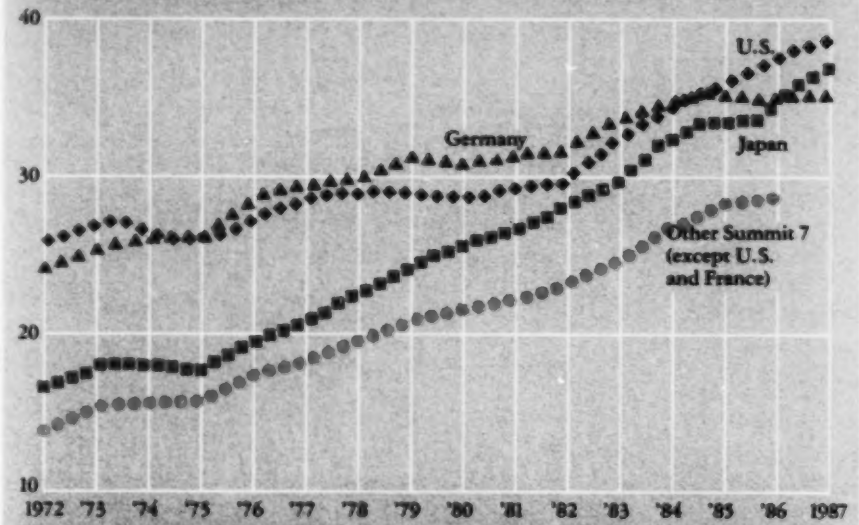
Although it is improving, U.S. productivity growth remains sluggish compared with that of many of its competitors. Productivity growth is a key indicator of a nation's ability to improve its competitive position in world markets. While U.S. productivity is the highest in the world, U.S. productivity has grown at a slower rate than that of its competitors.

U.S. firms have continued to lose market share. They have lost their advantage in the design and introduction of new goods and services. American consumers sometimes are attracted to foreign products because they offer higher quality and more innovation. Foreign firms often are able to develop and market new products more quickly than their American competitors. As a result, the manufacturing and merchandise trade deficits remain stubbornly high, notwithstanding significant downward adjustment of the dollar against major currencies.

U.S. firms continue to lag behind their competitors in introducing advanced technologies. This issue is of critical importance for small and medium-sized manufacturers. Quality and new product development depend on the willingness of firms to invest in research and the continued development and application of new technologies. American firms also lag in the reorganization of work needed to improve quality and flexibility.

FIGURE 1

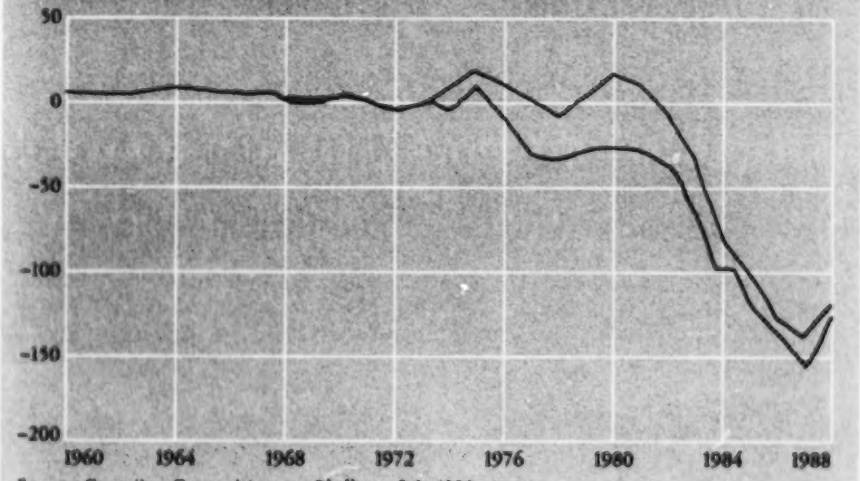
Merchandise and Manufacturing Trade Balances, 1960–1988
(In thousands of dollars)



Source: U.S. Congress, Office of Technology Assessment, *Making Things Better: Competing in Manufacturing*, OTA-ITE-443 (Washington, D.C.: U.S. Government Printing Office, February 1990), p. 4.

FIGURE 2

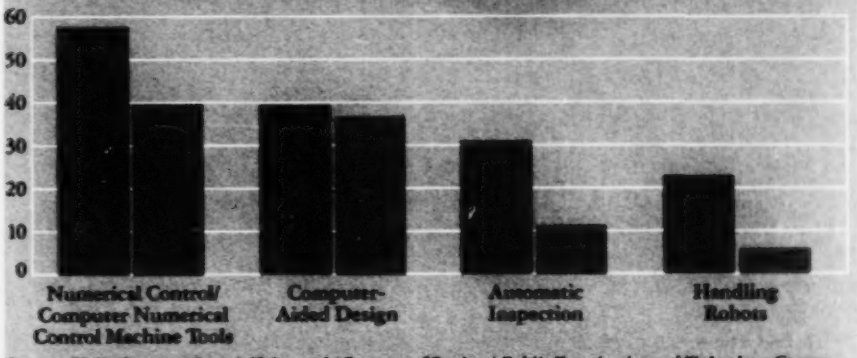
Productivity: Gross Domestic Product per Manufacturing Employee, 1972–1987
(In billions of dollars) Merchandise Manufacturing



Source: Council on Competitiveness, *Challenges*, July 1990.

FIGURE 3

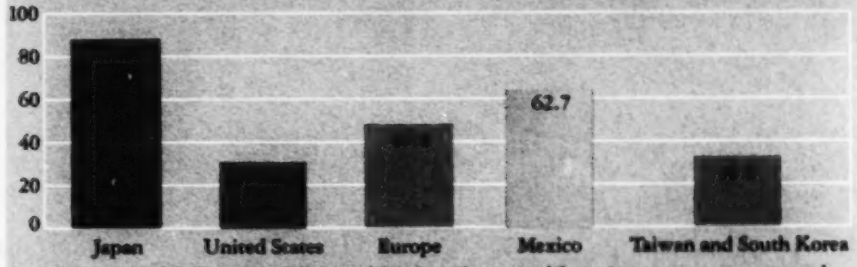
Use of New Technology in Manufacturing—Japan and the U.S., 1988
(Percentage of small firms using technology) ■Japan /■U.S.



Source: Philip Shapira, "Japan's Kohsenushi Program of Regional Public Examination and Technology Centers for Upgrading Small and Mid-Size Manufacturing Firms," Research Paper 9019 (Morgantown, W.Va.: Regional Research Institute, West Virginia University, October 1990).

FIGURE 4

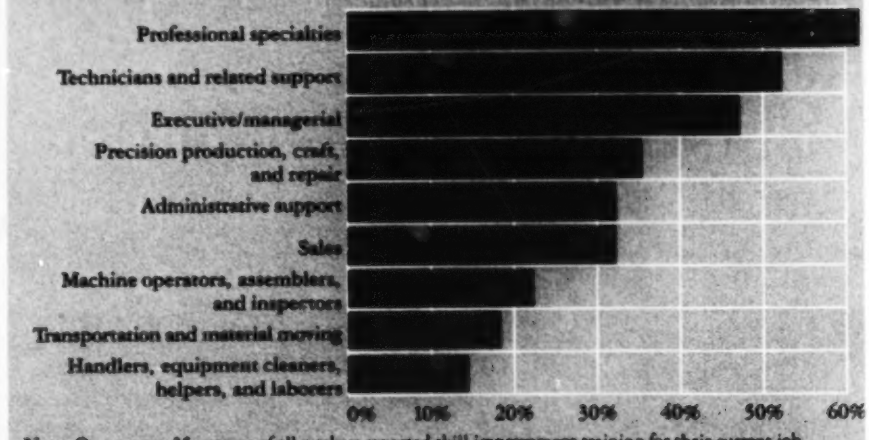
Annual Hours of Training Per Employee, Automobile Assembly Workers
(Hours)



Source: John F. Krafcik, *Training and the Automobile Industry: International Comparisons*, contract report prepared for the Office of Technology Assessment, February 1990, pp. 8-9.

FIGURE 5

Upgrade Training by Occupation
(Percentage of workers reporting upgrade training in their current job)



Note: On average, 35 percent of all workers reported skill improvement training for their current job.
Source: Max Carey and Alan Eck, *How Workers Get Their Training* (Washington, D.C.: U.S. Department of Labor, Bureau of Labor Statistics, 1985), pp. 18-19.

When measured by international standards, most American workers are not well educated or trained. Many employees of smaller firms receive no formal training. Larger firms provide more training, but most of it is for professional and technical managers and executives. The nation's major foreign competitors place much greater emphasis on developing workforce skills at all levels.

The Governors initiated Excellence at Work to address the economic challenges facing the nation. Their objective is to craft a strategic plan for integrating state human resource, economic development, and job training services to stimulate increased productivity within the American workplace. The initiative assumes that stimulating economic competitiveness will require multifaceted solutions, including using technology better, implementing more effective methods of organizing work, making a commitment to ongoing education and training, improving the outcomes of workforce preparation and retraining programs, and providing a more supportive work environment for workers.

This report discusses the factors embodying a culture of excellence and suggests specific actions states can take to facilitate excellence in the workplace, both in the public and private sectors. For illustrative purposes, woven throughout the discussion of action steps are examples of innovative, model programs states are currently operating. While each example represents a good start, meeting the global economic challenge will require expanding promising models into comprehensive systems.

A CULTURE OF EXCELLENCE

A culture of excellence ultimately requires a devotion to quality by all in both the public and private sectors. Achieving a culture of excellence also requires a new understanding of the way organizations and people function within society. Pursuit of individual goals now must be measured by the overall success of the business, the industry, and the community.

A Commitment to Quality

Long-term solutions to the competitive challenges confronting the nation can be achieved only by making fundamental changes in the thinking and behavior of organizations. These reforms can instill in the United States a culture that promotes excellence. The value of long-term investment must supersede the pursuit of short-term financial gain. Competitive problems must be addressed systemically, dealing with causes rather than symptoms. Simultaneous introduction of methods to improve products and services must replace incremental approaches for increasing productivity.

High-performance businesses that have achieved excellence realize the need for these changes and share several important characteristics. These include effective leadership, strategic planning, enlightened human resource management, quality assurance systems, and effective information systems.

A culture of excellence ultimately requires a devotion to quality by all in both the public and private sectors. Achieving a culture of excellence also requires a new understanding of the way organizations and people function within society. Pursuit of individual goals now must be measured by the overall success of the business, the industry, and the community.

A New Vision for States

Excellence demands high-performance state government committed to increasing its productivity and maximizing its return on investment. A number of factors are converging on states simultaneously:

- International competition is causing the private sector to demand better outcomes from government.
- Demands for state services continue to grow despite increasingly tight fiscal conditions.
- Responsibility for a range of programs is shifting from the federal to the state level.

As a result of these factors, a fundamental reevaluation of the kinds of services provided, the ways they are organized, and the quality of their outcomes must be undertaken at the state level. The goal of states committed to creating an economy of excellence should be to deliver high-quality human resource and economic development services.

In state government, leadership is the primary responsibility of the Governor. Governors establish the principles that guide the delivery of public services. Among the principles they promote is a commitment to high standards of ethical and professional conduct, efficient use of resources, cooperation and teamwork, and continuous improvement in the quality of state services. These principles must be translated into state policy goals that provide direction for the investment of state resources.

To maximize the return on limited public investments, services must be organized and delivered to increase effectiveness and productivity. To the extent possible, public investments should leverage or complement the commitment of private resources. Flexible management systems that are adaptable to change should be introduced to translate goals into practice.

Comprehensive strategic planning should involve all related agencies at the state and local levels if high performance values are to be integrated into government practices. Within the context of a strategic plan, states should address the need for

new services, delivery methods, and management techniques to improve the quality of state services. The strategic plan must set the goals that will drive all economic and human resource development activities.

As a service deliverer, the success of state government in serving the public rests in large part upon the skills and knowledge of its public servants. An ongoing commitment to upgrade the skills of the state workforce improves the quality of state services and serves as a lighthouse to other employers.

The current expansive libraries of program-specific management information systems should be organized into a comprehensive system to meet new management imperatives. Today, information systems frequently create artificial barriers to integrated service delivery. They should be restructured to facilitate communication among agencies and more efficient service delivery.

Quality assurance techniques must be introduced in the management of public programs to ensure the attainment of standards of excellence. The content of services delivered should be based upon the skill requirements of the employers and individuals who use state services. The introduction of new methods of service delivery should be carefully planned, and the new skills required of staff should be identified. The management system must include continuous evaluation based upon clearly identified, relevant benchmarks and feedback on performance. Technical assistance to staff should be ongoing and designed to prevent problems and improve outcomes.

Performance standards are an effective tool for communicating goals without restricting innovation or diversity in attaining these goals. Performance standards should be established for public programs that measure the outcomes necessary to meet the state's strategic goals. To reinforce the effectiveness of standards, states should develop incentives for attaining performance outcomes and sanctions for failing to meet them. They also should provide technical assistance for programs or operators needing to improve their performance.

If the United States is to remain a highly productive nation with a high standard of living, every individual and every organization—public and private—must take part in creating a culture of excellence. Governors can take the lead in fostering a culture of excellence by strengthening state government and supporting leaders in industry, business, and education who share this vision.

POLICY AND PROGRAM ACTIONS

States help businesses in a number of ways, including technical support services, financial incentives for investment, and training assistance. During the 1980s, state business assistance services expanded rapidly to include support for new product and process development, export promotion, and modernization assistance.

The system for delivering services to businesses is highly decentralized. State economic development agencies, local governments, community colleges, universities, vocational-technical centers, and a variety of quasi-public and private nonprofit groups all play a role. In most cases individual programs were established to address an identified business need. For example, seed capital programs provide financing for new business start-ups. Customized training programs help firms train new employees and retrain existing employees. Industrial extension programs help firms apply advanced technologies. While each of these programs serves a particular need, they typically do not recognize the interrelatedness of the issues affecting the competitiveness of individual firms.

Taken as a whole, the recommendations that follow offer a strategic action agenda for reshaping existing state economic development and workforce preparation systems. The goal of these recommendations is to increase the productivity of the workers and firms and maximize the return on public investment. Just as piecemeal solutions do not achieve desired outcomes for firms, fragmented policies and programs also have proven ineffective in achieving states' policy objectives related to the economy. Specific strategies are therefore recommended to better integrate elements of the complex public workforce and economic development delivery systems to make them more understandable and accessible to individual workers and employers.

These strategies also will improve the effectiveness and efficiency of state investments by reducing unproductive duplication of services and administrative systems.

In addition, it is recommended that states identify and fill critical unmet needs and better integrate public efforts with private programs to maximize total productive investment. To do this states can provide policy leadership, strategically invest public resources, broker services, provide incentives, offer information, and otherwise serve as a catalyst for change in both the public and private sectors. Given limited resources, states must decide when they should produce services themselves, when they should buy services from private providers, and when they should leverage the actions of others to achieve policy objectives.

It also is recommended that states consider targeting some of their investments to small and medium-sized firms in the manufacturing and high-technology service sectors, because these sectors provide the export base and add value to state economies. Small and medium-sized firms face significant barriers to increased productivity that are not shared by large businesses. They already lag behind larger employers in overall productivity and frequently lack the fiscal resources for simultaneous investment in equipment, training, and employee compensation packages.

Above all, to ensure a vibrant business environment within a dynamic economy, states must retain the flexibility to respond to changing needs and circumstances. Continuing monitoring and assessment are needed to ensure that programs reflect current economic conditions.

MODERN

The economic competitiveness of American firms in the international marketplace has suffered because many firms, educational and financial institutions, and government agencies have not anticipated or responded adequately to changes in the world economy. American firms, particularly small and medium-sized manufacturers, have been slower to respond to these changes than their foreign competitors.

In the coming decade, U.S. manufacturers will have to upgrade production systems, enhance design capabilities, improve products, seek new markets, and invest in improving workforce skills. Equally important is the development of a new organizational culture that is committed to continuous upgrading of skills and industrial innovation. State economic development policies should support the modernization and quality improvement efforts of smaller manufacturing firms.

OBJECTIVE

To increase the percentage of U.S. firms implementing high-performance work organizations characterized by quality, flexibility, and productivity.

STRATEGY:

Promote the concept of total quality and provide education and technical assistance to firms implementing quality improvement programs.

Only 5 percent of U.S. firms are high-performance companies, according to a recent report by the National Commission on the Skills of the American Workforce. While some U.S. firms consistently com-

IZATION

pete at the leading edge of the market with other firms worldwide, the vast majority of U.S. firms lag well behind industry leaders. Relatively few companies are committed to total quality management, and progress has been uneven in many leading U.S. companies. States can encourage companies to undertake quality improvement programs by:

- Establishing an awards program, similar to the Malcolm Baldrige National Quality Award program, to recognize high-performance firms, especially small and medium-sized companies.

The North Carolina Quality Leadership Foundation is a cooperative industry-academic-government effort to promote quality awareness, recognize quality achievement, and publicize successful quality strategies of North Carolina organizations. Assessment and annual awards are used to stimulate education of management and workers; improve performance and resource management; achieve excellence for greater success in a competitive environment; and apply total quality management guidelines established under the Malcolm Baldrige National Quality Award program. The Governor is honorary chairman of the North Carolina Quality Leadership Awards Council.

The annual Maryland Awards for Economic Excellence are presented by the Governor to those companies that have made outstanding contributions to the economic development of the state, whether through innovative training initiatives, entrepreneurship, or community service.

- Providing technical assistance on total quality management through seminars and workshops.

The Iowa Quality Coalition combines the resources of Iowa community colleges, three state universities, private colleges, and manufacturing executives. Its purpose is to promote quality awareness and commitment by executives from business and industry, education, government, labor, and service organizations. The coalition provides direction for quality-related awareness and education, supports the implementation of the Iowa Quality Plan, and assists and involves executives in the development of community quality committees.

Minnesota also has a Council for Quality to create awareness about quality concepts and quality productivity and how they are vital to global competitiveness and the state's economic future. The council develops relevant statistics to assess the state's competitive performance and works with business, labor, education, government, and the public. A limited amount of financial assistance is available to help communities promote quality management.

- Establishing certification programs to recognize high-quality products manufactured in the state and/or to improve the performance of firms within a particular industry. Programs to recognize quality products could be similar to existing programs that promote state agricultural products.

The California Aerospace Supplier Improvement Program (CalSIP) has developed a curriculum that focuses on the various principles and tools of total quality management, including statistical process control, cycle time reduction, and teamwork and communications skills development. The training is delivered at the supplier's facility and is tailored to meet the specific needs of each aerospace supplier company, following an extensive assessment. State monies are available to help cover the cost of training for eligible companies. Community colleges designated as Centers for Applied Competitive Technologies and their affiliates will provide the training. Representatives from ten major aerospace companies, the United Auto Workers, and the U.S. Department of Defense sit on the CalSIP advisory committee. The state is considering expanding the CalSIP model to other industries.

- Acting as a role model by implementing quality improvement programs within state government. The Governor can make quality management a priority and establish a single contact point to provide information and technical assistance to state agencies embarking on quality improvement programs.

In South Carolina, the State Budget and Control Board has formed a consortium among state agencies involved with or seeking to implement quality improvement programs. The board's Division of Human Resource Management acts as a clearinghouse for information on total quality management, publishes a newsletter on current initiatives, and provides consulting assistance to other state agencies. About fifteen to twenty state agencies are participating in the consortium.

STRATEGY:

Encourage the development of participatory workplaces.

In a 1989 study by Coopers and Lybrand, 96 percent of 400 manufacturing executives surveyed agreed that they should adopt participatory management princi-

ples; 65 percent believed that participatory management is the key to successfully implementing advanced technology. Yet, 55 percent of those executives said that their own companies have not sufficiently done so. Most continue to practice top-down management styles that are not compatible with the requirements of advanced manufacturing technologies. The same is likely to be true for service industries. Long-term productivity improvement must start with cultural change enabling true participatory management. Less confrontational attitudes and philosophical changes on the part of management and workers are needed to improve the performance of U.S. firms. States can help facilitate such changes by:

- Encouraging discussions between labor and management through the formation of labor-management committees, or the establishment of labor-management councils to address issues in the workplace.

Kentucky's Labor-Management Advisory Council is composed of the Secretary of Labor, who serves as chair, the Secretary of Commerce, and eighteen labor and management members appointed by the Governor. The council is responsible for improving labor-management relations within the commonwealth and attracting new industry. It also is an advisory agent to state government on labor-management relations. In 1984, the Office of Labor-Management Relations was created to provide staffing for the council. This office also provides extensive technical support to nine area labor-management committees and numerous in-plant cooperative programs throughout the state.

- Providing education and technical assistance to firms on establishing participatory workplaces.

The Center for Applied Technology (CAT) is one of four Massachusetts Centers of Excellence. CAT is a service for small and medium-sized manufacturers to bring new technology and improved work organization to firms. The center provides direct technical assistance to firms on planning and implementing change in production technology, including recommendations on updating or acquiring new equipment, analysis of work organization and skill development to achieve maximum productivity and skill utilization; and financial and management analysis of the impact of technical change and the cost/benefit of such change to the firm. Unique to CAT is the requirement that workers be involved in planning the implementation of any changes. The costs of the technical assistance are shared equally by CAT and the company.

- Targeting state job training and business assistance services to firms that demonstrate a commitment to total quality management and that incorporate participatory management techniques in their operations. States have found that job training services are more effective when delivered in tandem with other business assistance services such as management assistance, financial assistance, or technology services.

STRATEGY:

Develop a state delivery system that links technology, management, marketing, financing, and training assistance for small and medium-sized firms.

The current system of delivering services to small and medium-sized businesses is fragmented. In 1989, NGA identified more than 200 publicly funded organizations nationwide providing direct assistance to businesses. The list included only those programs receiving state funds. Universities, community colleges, local governments, business associations, and nonprofit organizations also provide business assistance services. These programs differ greatly in the type of assistance they provide and the extent to which they help U.S. manufacturers adapt and use productivity-enhancing technologies. States should examine the range of support services available, target available resources to help businesses modernize, and link the deliverers of services to form a single support network. States might offer training for service providers to increase their awareness of available resources.

Indiana's Corporation for Science and Technology has established five regional organizations to support small manufacturing companies. The program plays a facilitating role, acting as a liaison between companies needing assistance and the providers offering services. Each regional center is guided by a regional management board composed of key public and private sector leaders. The center agents assess the technical and business needs of the client companies and assist in meeting the companies' needs for off-the-shelf technologies and manufacturing practices. These tasks often include identifying and brokering public and private resources available to provide assistance.

Tennessee's state, federal, and university providers of services to small businesses have formed an organization to better coordinate their activities and leverage limited resources. The first major result is a new program to help smaller manufacturing

firms realize opportunities for productivity improvement through better access to National Aeronautics and Space Administration and Oak Ridge National Laboratory technology.

STRATEGY:

Organize state business assistance services for groups of firms, not individual establishments.

About 355,000 small and medium-sized manufacturing firms are operating in the United States. State programs that provide on-site technical assistance can usually serve only 150 to 200 clients a year. It is clear that in order to achieve a significant improvement in the adoption of technology and modern management practices, such programs must reach a larger percentage of the total firms needing assistance. States can provide technical and financial assistance to clusters of firms committed to working together to address common needs. Clusters can be organized for a particular industrial sector, geographic area, or supplier network. Cooperation among states may be desirable in serving the needs of particular industries.

Massachusetts' Industrial Services Program funded the Machine Action Project (MAP) that focuses on firms in a specific geographic area. MAP works with vocational and technical high schools, training institutions, machine shops, and labor unions to strengthen the competitive abilities of machine shops in western Massachusetts. MAP develops technology training and curricula, and coordinates training among vocational and technical high schools, community colleges, private and public training institutions, and industry. MAP also is initiating the development of a flexible manufacturing network among metalworking firms in Hampden County, Massachusetts. Additional projects include an analysis of the extent of defense dependency among firms in the region and a Women in Machining Program that seeks to improve the ability of women to fill jobs in the machine tool industry.

The Michigan Modernization Service provides grants to groups of firms that commit to working together to address common needs within their industrial sector.

STRATEGY:

Support the creation of industry-managed intermediary organizations.

Acting as retailers of technical information and hands-on assistance, intermediary organizations can help ensure that resources spent on firms support those activities firms believe are the most important. While state assistance may be needed to encourage the creation of such organizations, they should ultimately become self-supporting. Start-up support for these organizations should be provided on a competitive basis.

The Maryland Manufacturing Consortium is composed of representatives from several Maryland manufacturers, universities, community colleges, government agencies, and the Maryland Manufacturing Association. The consortium has established a Foundation for Manufacturing Excellence to improve manufacturing productivity and technological performance by assisting firms adapt and use advanced manufacturing technologies, processes, and practices. The foundation is a regional focal point for advancing excellence practices in manufacturing. Its members develop resources, provide development and training, coordinate resources and programs, and carry out market research and evaluation on technology, processes, and materials.

In 1988 Pennsylvania initiated an Industrial Resource Centers (IRCs) program to transfer both known and advanced technology to small and medium-sized manufacturers. IRCs are independent nonprofit corporations managed by private industry professionals. The nine IRCs provide technical assistance to manufacturers in the form of on-site assessments, in-depth analysis, and provision of solutions to technical problems. The Northwestern Pennsylvania IRC supports the National Institute for Flexible Manufacturing. It is a shared facility that provides small metalworking firms with access to advanced technologies and machine tools. The institute also provides total quality training to regional companies.

STRATEGY:

Promote collaboration among firms.

States can motivate small firms to join together in order to articulate common needs and define mutual solutions. Manufacturing networks afford firms the opportunity to access expensive technologies and blend complementary capabilities to bring innovative products to new markets. Activities range from the regular exchange of strategic information to joint ventures for product development. States can provide challenge grants to encourage the development of networks, or provide support to industry associations.

Arkansas is one of several states participating in the Southern Technology Council's Industrial Modernization Project, which will encourage the establishment of interstate and intrastate networks. The Metalworking Connection is a network established in southern Arkansas to enable its fifty-eight member firms to achieve cost savings through group insurance and joint purchasing and marketing. The state is training network brokers and initiating a challenge grant program to provide seed funding for the establishment of additional network projects. Pennsylvania also provides grants to establish industrial networks through its manufacturing innovation network initiative.

The Ohio Department of Development recently established a pilot program to help intermediary organizations create industrial networks. Five network projects have been funded statewide, each in a different industrial sector. Network activities will include joint marketing, production, and training. In Maine a group of firms are sharing a Computer-Aided Design (CAD) system.

OBJECTIVE

To ensure that small firms have adequate access to information on domestic and foreign markets.

Segmented international markets have replaced mass national markets. The revolution in information processing and transportation technologies, propelled by divergent consumer tastes, has produced an increasingly niche-oriented marketplace. Niche markets often are volatile markets, and customized products aimed at these markets tend to have very short life cycles.

Smaller firms may have a decided advantage over larger firms because they may be able to respond more quickly to market or technology shifts. However, smaller firms can lack the sensing mechanisms of larger companies. Their small scale normally precludes the maintenance of worldwide marketing and distribution systems that enable larger firms to spot market shifts almost immediately. Meeting the needs of one narrow market niche may present special problems to small firms in discerning the emergence of new niches. States can help smaller firms obtain information on market opportunities, particularly in international markets.

STRATEGY:
Facilitate access to market information.

Finding new markets is a difficult task, particularly for small firms without internal marketing capabilities that lack the resources to access outside expertise and data sources. States can provide assistance to firms by offering state-specific information, by linking them with basic information sources in the federal government, or by undertaking market feasibility studies. States also can provide training on how to develop a marketing plan and how to evaluate new market possibilities.

The Alabama Industrial Modernization Program assists targeted industries to improve productivity by using efficient equipment and methods. In the first year, the program focused on the textile industry. A project team of industrial engineers, technology transfer specialists, and textile marketing and management experts conducts needs assessments for firms and provides assistance on marketing, management, and technology issues. A database containing information on Alabama textile producers has been developed by the state to market their services. A producers' directory has been published and distributed at industry trade shows and through other distribution networks.

The Michigan Modernization Service's Marketing Development Service evaluates businesses' product lines and production capabilities and links firms with appropriate national and international export markets. In addition to providing information on current markets, the service teaches clients to prepare marketing plans and evaluate market possibilities. The program targets its assistance to small manufacturing firms that normally do not have internal marketing capabilities. Developed by the Industrial Technology Institute, a sophisticated analytical model helps identify diversification possibilities based on current production capacities.

TECHNOLOGY

The ability of U.S. firms to compete in world markets depends on their ability to generate new ideas and use advanced technologies. To remain competitive, American companies must continually adopt new technological processes and introduce new products. Yet, indications are that U.S. manufacturers have been slow to automate and use existing technologies. This issue is of critical importance for small and medium-sized firms.

Several recent studies of the patterns of technology use among small manufacturing companies have reached similar conclusions: The vast majority of these companies do not employ the level of technology that larger firms have found necessary to compete in the world economy. The failure to adopt existing technologies will prevent these firms from producing the diverse, quality products that are demanded by the global market or by those who assemble for that market.

There are several reasons why small firms do not make use of available technologies to improve their operations. The owner or manager may not see the need to use these technologies, they may lack information on what technologies are available, they may lack workers who know how to operate new equipment and machinery, or they may lack the capital needed to invest in new technologies.

While information on technologies is available from a variety of sources, including a large number of publicly supported organizations, most small firms are not well linked with sources of information about technology deployment. They are not able to take advantage of the unstructured information and assistance that is available to them. The absence of strong linkages among small firms and among small supplier firms and their larger customers is an important factor limiting the rate of adoption of new technologies. In many competitor countries, in addition to extensive public programs to provide information and technical advice to small firms, collaborative relationships among firms have enabled companies to learn from each other.

OBJECTIVE

To facilitate the deployment of technology and modern management practices, particularly in small and medium-sized firms.

STRATEGY:

Make technology diffusion an integral component of state development strategies.

State governments are actively supporting the development and application of new — often state-of-the-art — technologies by supporting research and development and providing seed capital to introduce new products or start new enterprises. Fewer resources have been devoted to technology diffusion (i.e., the introduction of existing technologies to established firms). Each state should examine the mix of science and technology activities it is supporting to determine how resources are allocated between technology development and technology diffusion. Technology development efforts should be examined to identify ways to use these resources to support technology diffusion. For example, advanced technology centers could be required to incorporate both technology transfer and technology diffusion elements in their work plans. Universities receiving state money for research and development might be required to provide technical advice and assistance to small firms.

STRATEGY:

Link technological assistance with training, marketing, and management assistance.

Industrial modernization involves technology, finance, worker and manager skills, markets, and organizational culture. The introduction of new technologies and techniques often requires that workers develop new skills, and in some cases, necessitates changes in labor-management relations.

State technical assistance programs should help firms identify training needs required by the introduction of technology, and plan and implement human resource programs to meet those needs.

State industrial extension programs must recognize the interrelatedness of the issues facing small and medium-sized firms and integrate services to respond to their needs. This can be accomplished by having a single entity deliver a range of services or by having the technology extension service broker the services of other organizations.

States can promote the creation of informal training consortiums so that workers from small and medium-sized firms can be more effectively served by the public sector. At the same time, states can encourage educational institutions to tailor services to the needs of individual firms and groups of firms and their employees.

The Michigan Modernization Service (MMS) provides direct, customized consultation to small and medium-sized manufacturers in technology deployment, workforce development, and market analysis. The consultation includes a basic assessment of the firm's operation, including its training, marketing, and technology needs. A unique aspect of the program is the integral role of training. MMS visits to firms are always made by a team that includes a training expert, and the recommendations developed for firms always include some on training. MMS also assists firms that want to access additional resources to help them modernize. It has established a consulting brokerage that can recommend private consultants with specialized skills in new manufacturing technologies.

FINANCING

Financing is a frequently cited obstacle to modernization of small and medium-sized companies. In addition to the need for capital to acquire new equipment and machinery, firms often need to invest in worker training, the development of new markets, and new systems for distribution and service. These are expensive investments for small firms. Often these types of working capital needs cannot be met by commercial banks because such investments hold greater risks than traditional loans for fixed assets.

While high-risk capital usually is provided in the form of equity, equity financing often is not a realistic alternative for these small firms. Very few small companies can satisfy or afford the regulatory constraints of public equity financing. Private equity is very expensive. Venture capital firms typically look for a return on their equity investment in the range of 30 to 40 percent. Most owners of small modernizing companies cannot demonstrate the level of growth to support that kind of return. Of the owners who can, many often are unwilling to pay the price of giving up much of the ownership and control of their company.

Many states have a long history of small business financing. Few states, however, target their financing strategies to modernization. A few states have developed programs to help meet the gap in the capital market between the low-risk/low-return conventional lending of commercial banks and the high-risk/high-return investment of venture funds.

OBJECTIVE

To ensure the availability of capital to meet the needs of small modernizing firms.

STRATEGY:

Redirect state development financing programs to include financing for modernization efforts.

Most state financing programs provide financing for fixed assets. A smaller number of programs provide financing for working capital. States should examine existing programs to determine the extent to which they are supporting modernization efforts, identify obstacles to their use for modernization, and modify eligibility requirements or other program regulations to allow financing for modernization.

STRATEGY:

Create new financial institutions or mechanisms to make higher risk capital available for modernization.

A few states have sought to develop new programs to meet the need for moderate-risk/moderate-return financing. Michigan has supported the creation of private, nondeposit-based lending institutions known as Business and Industrial Development Companies (BIDCOs). Indiana has promoted the establishment of a private, for-profit consortium of banks; member banks pool their higher risk lending and restructure debt in nontraditional ways. Ohio and Michigan have experimented with a public subsidy for the loan loss reserve fund of private banks that are willing to exceed their conventional credit limits for firms in this mid-risk range. States also can:

- Encourage commercial banking institutions to design new lending arrangements that can tap the money supply of these banks for higher risk projects. Using private commercial institutions helps ensure accountability.

> Indiana has helped approximately fifty banks to jointly establish a private lending corporation. Each member bank has made a small equity investment in the corporation (sufficient to cover annual operating costs). Each has given the new institution a line of credit — now totaling more than $12 million — that supplies the pool of capital from which the organization draws its loan funds. Member banks identify the prospective borrowers, usually established customers whose current credit requirements outstrip the risk limitations of the individual bank.

- Provide financial assistance for modernization and target such assistance to firms committed to total quality management. States should assist firms in conducting an initial assessment of their management structure and technology and training needs prior to providing financing. It may be necessary to refer firms to other sources of management and technical assistance as a condition of receiving financial assistance.

> New York's Industrial Effectiveness Program (IEP) provides technical and financial assistance to New York manufacturers. Productivity assessment grants of up to $150,000 are available to obtain

expert consultants who can help identify problems and suggest solutions for increasing productivity and competitiveness. Project loans are available for implementing action plans based on productivity assessments and feasibility studies. These include working capital loans for productivity improvements (up to $250,000), working capital loans for restructuring (up to $400,000), and local buyout loans (up to $1 million). To obtain IEP assistance, a firm must demonstrate that it faces out-of-state competition, can overcome problems, has competent management, will invest the money, and is a partner with labor.

WORKFORCE QUALITY

In an American workplace facing international competition, restructuring, and accelerating technological change, workers with adaptable skills and the capacity for retraining are a prerequisite for success. To reap the economic rewards of the future, workers must be engaged in continuous upgrading of skills and knowledge. Because 80 percent of the workforce of the year 2001 is already in the labor market, creation of a world-class workforce for the future requires upgrading the skills of the current workforce. The pressure for lifelong learning affects all workers from the shop floor to the executive suite.

To compete effectively within the international marketplace, more people with world-class skills are required. They must be able to integrate and apply knowledge to make decisions and solve complex problems in a variety of often unpredictable situations. They must have the ability to do multiple tasks, including those not directly assigned, both quickly and accurately. In addition, they must be able to learn on the job, cope with special situations, improve current operations, manage costs, and supervise and nurture subordinates. Demographic changes mean that these higher standards must be achieved by groups in the population—women, minorities, and immigrants—who previously have not achieved success in education and training programs. Thus, states must demand higher quality outcomes from both public and private workforce development programs.

To meet these challenges a wholesale change in the nation's workforce development system is needed. The current system is fragmented. Services are delivered through various public educational institutions, nonprofit community-based organizations, proprietary schools, employers, industry associations, unions, and professional associations that respond to diverse missions, performance expectations, and funding incentives. While diversity is desirable, a lack of coherence to these efforts results in gaps in services and other inefficiencies that diminish opportunities for workers and businesses to take advantage of affordable and easily accessible services.

OBJECTIVE

To ensure that the workforce development system responds to the ongoing needs of firms and workers.

STRATEGY:

Establish an ongoing dialogue with employers to define workforce competency standards that reflect the changing skill requirements of the workplace.

Reaching consensus on workforce competency standards based on skill requirements of the workplace provides a common framework for action throughout the labor market by:

- Providing a common set of competency standards against which all publicly funded and regulated providers of workforce development services can be held accountable as part of broader performance management systems.
- Driving curriculums and course offerings in secondary and postsecondary educational institutions, and in programs provided through nontraditional providers and in the private sector.
- Providing benchmarks that employers can use in their training programs and in their compensation systems to reward workers for acquiring additional knowledge and skills.
- Serving as the basis for a system of performance-based assessments that employers can use to objectively recognize individual achievement in hiring and promotion decisions, and that individuals can use to document skill acquisition regardless of where learning takes place.

STRATEGY:
Reach consensus on the skills and levels of proficiency that should be achieved by those preparing to enter the workforce and by existing workers.

Governors and business leaders can:

- Raise public awareness of these requirements and send a strong signal to students, workers, and employers that ongoing educational development must become a shared value and responsibility.

Maryland's multifaceted "Quality is at Work in Maryland" campaign includes technical assistance, a public outreach program to companies and individuals that stresses the urgency of taking responsibility for keeping the workforce current, and awards for exemplary company actions.

- Conduct a statewide assessment of workforce skills to determine needs.

- Clarify state policy objectives related to achieving the necessary skills throughout the workforce.

Maine's Governor has set forth specific policy goals for the state's human resource development strategy. These include strengthening multi-agency planning for human resources, better coordinating human resource planning with economic development activities, and increasing retraining and upgrading opportunities for workers in existing industries. In partnership with the private sector, labor, and education, a subcabinet group works through the Maine Human Resource Development Council to create an annual plan with concrete objectives to accomplish these goals and to establish measures for assessing their progress. Individual state agencies must address their contributions to these broad goals relative to their own objectives, goals, and planning. Utilizing multiple state resources from several departments, the council has been nationally recognized for successfully instituting comprehensive human resource investment planning throughout state government.

- Review current expenditures relative to these policy objectives to determine whether a redirection of resources is necessary.

Charged with simplifying and integrating the state's workforce readiness system, the New Jersey Employment and Training Commission is realigning state responsibilities both within and among state agencies. Sixty-four programs previously administered by six state agencies are being consolidated into fifteen program areas operated within three "producer" agencies—the departments of education, higher education, and labor. Programs are being clustered according to major functions to ensure the coherent delivery of services by maximizing services and minimizing confusion, fragmentation, and duplication. The state expects this consolidation and the more appropriate use of federal funds to result in a $6 million saving to the state during an eighteen-month period.

At least three other agencies—commerce and economic development, community affairs, and human services—serve as the guarantors of program quality by participating with the other agencies in a coordinated state-level planning process. This process will result in a single state plan to provide necessary work readiness and supportive services. Quality control will be ensured through a comprehensive monitoring and evaluation system. The Institute for Staff Development, housed within the commission, will build support for the new system and increase the capacity of professionals working at both the state and local levels.

- Target investment of state resources to achieve these policy objectives as efficiently and effectively as possible within the public and private sectors, without substituting public funds for private funds.

South Carolina's Governor created the Initiative for Work Force Excellence in 1988 to ensure that different providers of education coordinated their services, and that these services were tailored to the needs of industry. The Governor appointed more than 300 of the state's business leaders to serve on forty-three roundtables that today direct and govern the initiative's activities. Since the initiative's inception, more than 400 programs have been implemented with businesses and industry across the state, including specialized curriculum for the textile industry.

OBJECTIVE 2

To encourage firms to enhance their employee training efforts.

The average U.S. company invests only about 1.5 percent of its payroll in employee training, compared with 68 percent in many foreign companies. Much of the private sector's investment in training is concentrated within large firms and is for managers and other higher level workers to solve immediate workplace problems or prevent short-term anticipated problems. Less than a third of such training is directed to front-

line workers who are key to improving productivity. Only rarely is training considered a strategic long-term investment to support company growth or an integral component of a firm's competitiveness strategy to achieve specific productivity gains or other improvements.

STRATEGY:
Provide technical assistance to businesses in planning, conducting, and evaluating retraining programs as an integral component of company efforts to achieve productivity and competitiveness gains.

States can:

- Target assistance to individual firms and groups of firms, especially small and medium-sized companies that often lack the in-house capacity to undertake human resource development planning on their own.

- Work with firms to encourage them to expand their human resource investments, especially for workers with the least education who traditionally have received the least amount of employer-sponsored training.

> Maryland's "Quality is at Work in Maryland" initiative includes a matching grant challenge program to encourage companies to increase their investment in workforce training during the next four years.

- Provide technical assistance in conjunction with state customized training programs to encourage firms to identify their training needs and develop their training plans before submitting an application for state financial support.

> In Maryland a Business Resource Network has been created through which staff from numerous state and local agencies will be available to conduct business assessments, assist with development of business plans, and link businesses with appropriate state and local resources.

- Help firms develop clear and measurable performance objectives for training that are consistent with their overall business strategy.

- Assist firms in determining appropriate instructional methods and work conditions that motivate individual workers to attain specified competencies.

> Mississippi's Commission on Work Force Excellence, composed of the state's top private sector leaders, is charged with promoting cooperation between the business and education communities to develop workforce goals and objectives and a strategic action plan that identifies new approaches and expands successful programs to improve the job-related skills of the workforce. One such program is the basic skills tax credit program that provides an incentive for increased private sector investment in workforce training and retraining. Twenty-five percent of qualified training-related expenses—including the costs for instructors, instructional materials, equipment, and the construction and maintenance of facilities designed for training purposes—can be credited against state income taxes by employers. Under the Skills Enhancement Program, community colleges work with their employees to conduct literacy audits and develop curriculums for workplace basic skills training.

STRATEGY:
Use customized training programs to provide financial incentives to companies that undertake quality work-based retraining programs on a scale and timetable that otherwise would not occur.

State efforts can:

- Promote and support private sector implementation of retraining activities that are integrally linked to firms' strategies to become more competitive.

> Missouri's Basic Industry Retraining Program helps industries retrain employees and upgrade employee skills to support new capital investment. Many of the projects are jointly funded by the Division of Job Development and Training and the Missouri Department of Elementary and Secondary Education in order to meet the retraining needs expressed by employers. Projects include classroom training, on-the-job training, and combinations of the two.

- Help workers meet state standards of educational performance and earn necessary certificates and licenses.

To target training investments, minimize substitution effects, and increase the likely return on state training investments, states can select projects in which:

- Worker retraining is an integral part of a company's larger plans—including technological and organizational changes—to improve its performance and enhance its competitive standing within an industry. For example, training might be provided to improve product or service quality and/or reduce overall cost.

- Worker retraining is a critical factor in improving work unit performance because of significant shifts in the functional skill requirements necessitated by workplace changes. For example, training might be provided to reduce the need for repairing or reworking final products, thus increasing labor productivity. In such projects training is relevant to workplace needs, workplace changes provide opportunities for workers to apply their newly learned skills, and the full potential impact of training on productivity is realized.

- Retraining can provide workers with high-demand, transferable skills that are designed to improve work unit or company performance, enhance workers' employment opportunities outside the company, and potentially alleviate skill shortages within the state. Such training is less likely to be provided by companies on their own because of the risk of losing this training investment to other companies when workers leave.

States also can:

- Implement performance outcome systems for measuring the return on state investments in terms of the skills and competencies achieved and company and/or work unit performance.

- Seek a dedicated source of funds that brings together the interests of the public and private sectors and has built-in mechanisms for regulating the flow of funds to meet demands for training assistance.

> Rhode Island's Workforce 2000 Council was created by the Governor in 1988 to provide incentives to business and government in order to improve the preparation of future workers and upgrade the skills of existing workers. The council has been designated as the state-level coordination body responsible for establishing compatible and integrative goals for the state's employment and training system and overseeing the creation of a truly integrated workforce development system. The primary funding vehicle for the Workforce 2000 Council is the employer-financed Job Development Fund. This fund supports business and industry training and upgrading, employment and training services for targeted populations, labor market research and information, and improvements in education and training systems, workplace literacy, and productivity.

STRATEGY:
Cluster the training needs of small and medium-sized firms so that the public sector can more effectively meet their needs.

States can:

- Promote the creation of informal training consortiums among small and medium-sized firms within the same industry and/or among the large firms and the smaller firms in their supplier network to plan and conduct appropriate training for their workers.

- Act as a catalyst to build the capacity of existing trade and other business associations to organize such consortiums. (The National Alliance of Business found that only 5 percent of trade associations currently perform this function.)

- Provide training facilities for small and medium-sized firms modeled after the German multi-employer training centers.

- Familiarize employees with the educational resources available and work with educational institutions to encourage them to tailor services to individual firms and groups of firms and their employees.

> The chancellor's office of the California community college system operates the Economic Development Network program to help businesses use the educational resources of the state's 107 community colleges.

STRATEGY:
Work with employers and educators to expand opportunities for structured work-based learning.

Programs that integrate theoretical instruction delivered in the classroom with practical instruction provided through structured on-the-job work experience are more effective than classroom instruction alone. Linking theory and application succeeds in teaching many people how to integrate knowledge, apply skills, and work cooperatively to solve problems they may encounter on and off the job. Greater use of this strategy is important if states are going to increase the proportion of people entering the workplace who are equipped with necessary skills. It is especially important because a growing proportion of the workforce comes from groups who have not been well served by traditional educational approaches. If programs are structured to result in certification of skills for employment and the award of educational credit, they promote the involvement of people in lifelong learning.

States can support the implementation of apprenticeship-type programs by:

- Encouraging employers and educational institutions at the secondary and postsecondary levels to form partnerships to implement apprenticeship and other competency-based, workplace training programs.

A new carpentry apprenticeship program in Vermont will permit secondary school graduates who have attained specified carpentry skill competencies to earn credit toward their total apprenticeship program requirements. In Illinois statewide industry skill standards are being developed to serve as the basis for integrating "2 + 2 tech prep"—a combined secondary and postsecondary program leading to an associate degree—and apprenticeship programs in manufacturing technology occupations.

- Encouraging teacher training institutions to include instruction on experiential learning in their pre- and in-service programs.

- Supporting research and development activities that underwrite the costs of developing relevant instructional materials and assessment tools, and conducting evaluations of such activities.

OBJECTIVE

To create an easily accessible, comprehensive service delivery system for individual workers and firms.

Better integration of services makes a wider variety of services more accessible to clients with diverse and often complex needs no matter where they enter the system. It enables case managers to track information about client needs and progress across programs and institutions. Better integration also makes it possible to evaluate the effectiveness of entire local delivery systems in responding to the needs of employers and individuals.

STRATEGY:

Promote better integration of workforce preparation services.

States can:

- Establish compatible performance measures and standards for all publicly funded workforce preparation programs in order to avoid unintended "creaming" and the segmentation of services among programs that can lead to a reduction of services to other client groups.

Michigan's Commission on Jobs and Economic Development identified academic, personal management, and teamwork skills as essential for employment. The commission also emphasized the importance of vocational-technical skills for success in the workplace. The strategy concentrates on linking a few defined outcomes with services and resources provided to customers (whether individuals or employers); insists that local managers and providers meet standards in the way they manage the system such as using common entry and assessment practices, a common definition of outcomes, and compatible quality standards; and lets those at the local level decide which agencies will do what without state government interference, as long as other management objectives are met.

- Help service providers reach agreement on mutually acceptable assessment instruments and intake and assessment procedures.

- Establish, to the extent possible, common definitions, record-keeping, and reporting requirements for all workforce preparation programs.

OBJECTIVE

To ensure quality workforce preparation programs.

STRATEGY:

Establish measurable performance standards.

State policymakers should clearly communicate their priorities and expectations of high-level performance by establishing outcome standards against which program effectiveness may be judged. Program administrators respond to the broad policy signals sent by performance standards. This is particularly true when the standards are backed up with a system of incentives and sanctions policies. Such policies should reward those who succeed in achieving desired outcomes and sanction and/or provide assistance to those who fail to perform adequately.

An emphasis on outcomes shifts the focus of state administrative agency activity from micromanaging local programs to ensure compliance with design standards, to creating a more efficient system of incentives, sanctions, and experimentation on ways to achieve desired outcomes. Under this scenario, states play an important role in providing technical assistance, staff training, and evaluation support.

In developing performance standards for workforce preparation programs states should consider:

- Using multiple indicators of success that reflect the diverse goals of programs and the complexities of achieving these goals under varying conditions. These should include individual outcome measures related to gains in workplace competencies, employment, and earnings.

Before California's Employment and Training Panel makes its final payment to companies and other grantees providing retraining, they must demonstrate that workers receiving retraining have been retained in employment for which they were trained at least ninety days at the wage specified in the agreement. Recent amendments to the statute also will require that training has resulted in measurable productivity gains or other improvements that result in a new benefit to the California economy.

- Establishing program outcome measures that reflect the specific goals of individual programs such as training-related placements, attainment of work-related competencies, and changes in work unit productivity or company performance.

A 1984 Florida law requires a 70 percent training-related placement standard for all public vocational education job preparatory programs. Programs not meeting this standard for three consecutive years are ineligible for future funding. Decisions about whether or not programs reach this standard are based on information from the state's Education and Training Placement Information Program. Unemployment insurance tax and wage record data are matched with other administrative databases to determine the employment status and continuing education and military experiences of former students during a defined time.

- Balancing the measures and standards used to send the right signals to service providers. For example, a measure that emphasizes placement should be balanced with one that emphasizes the importance of the placement wage or the earnings achieved over an extended post-program participation period.
- Providing incentives for serving those clients with the greatest barriers to employment by taking into account the characteristics of the population being served in calculating performance expectations.

STRATEGY:
Create a common framework for skill assessment within the public and private sectors.

Governors can provide leadership in creating an independent, national assessment system that would evaluate what people know and can do against commonly agreed-upon competency benchmarks for entry into the workforce and performance at more advanced levels. Rather than using traditional multiple-choice, written tests, this system would use work demonstrations, portfolios, and other techniques for measuring people's ability to integrate knowledge and skills to perform relevant tasks.

To prepare the groundwork for implementation of such a system, Governors can:

- Work with employers, educational institutions, and other providers of education and training services to use the commonly agreed-upon benchmarks and make their current assessment and training practices and use of credentials more compatible.
- Encourage employers to recognize competency acquisition in their hiring, promotion, and compensation systems.

Competitive contracting gives those who purchase services—government, employers, or students—improved leverage to move from providers that do not deliver quality outcomes to those that can better meet performance expectations. States can:

- Expand the use of competitive contracting procedures in all workforce development programs, soliciting proposals from both public and private providers that can meet acceptable quality standards at a fair market price.
- Separate program administration functions—what services to provide, to whom, and at what cost—from service delivery to promote accountability in cases where the state is the deliverer of services.
- Support the development and maintenance of a competitive pool of public and private organizations that can meet the standards of performance through professional training and credentialing programs for provider agency staff and competitive research and development grant programs that encourage program innovation.

STRATEGY:
Promote informed consumer choice to encourage system responsiveness and efficiency.

Consumer choice of post-compulsory education and training services gives consumers ownership of the system and allows them to match available services to their particular needs. States can:

- Permit employers and industry associations to select their own service providers in projects funded through discretionary grant programs. State customized

training programs establish strong consumer control and choice by providing training grants directly to employers and allowing them to choose the most appropriate training vendor for their companies. About a third of the states operating state-financed, customized training programs already provide at least 70 percent of their training funds in this manner. Another third operate mixed delivery systems, with some grants going to educational institutions and other providers and some going directly to businesses.

The Illinois Prairie State 2000 Authority's Employer Training Assistance Program makes grants or loans to eligible employers to assist them in retraining employees in new technologies or productivity/quality improvement systems. Firms that are eligible for assistance must demonstrate that they lack the financial resources to conduct the retraining in a proper or timely fashion. In addition, as a condition of assistance, firms making the request must provide a reasonable business strategy that incorporates the proposed training. Its Individual Training Assistance Program provides financial assistance through training vouchers to both employed and unemployed workers who need to upgrade their skills in either new technologies or productivity/quality improvement systems.

- Establish individual training or investment account programs that permit an individual to save money—contributed by the individual alone or in conjunction with an employer—to pay for necessary training in the future.

- Provide state tuition reimbursement to school districts and other education providers for costs associated with adults obtaining their high school diplomas or equivalents.

STRATEGY:
Strengthen counseling, assessment, and information services.

Consumers need easily understandable, locally relevant, comparable information on the skills required in the workplace, available jobs, and the relative merits of various training providers and opportunities. They need help in relating this information to their own goals and circumstances. To improve the quality of services, states can:

- Require all publicly funded or regulated service providers to report information on their performance.

- Incorporate qualitative information on programs that meet minimum standards of performance in state labor market information systems for planning and career information systems.

- Publish and disseminate this information in a form that makes it easy for career counselors, program planners, and individuals to compare the performance of alternative service providers against a common set of standards.

Texas' Standardized Occupational Components for Regional Analysis and Trends in Employment System (SOCRATES) is an interactive modular software package designed to assist regional quality workforce planning committees in the analysis of local labor market dynamics. The system enables planners to identify key occupations and tasks and duties associated with these occupations, and related education programs available within the geographic area. The Texas Department of Commerce, which sponsored the development of the system, encourages localization of data on employers, jobs, and educational resources.

- Locate computerized state career information delivery systems in more human resource local offices and other locations throughout the community where adults with multiple barriers to education and labor market participation are likely to be. Operated through state occupational information coordinating committees, these systems currently disseminate information on occupations, education and training programs, and specific job opportunities to more than 6 million people at some 15,000 sites nationwide, primarily in secondary schools.

- Provide incentives for multi-agency, pooled funding arrangements to support information, counseling, and assessment services. These systems should be coordinated with statewide credentialing and voucher systems, as appropriate.

- Use the public Employment Service, the Job Training Partnership Act system, and/or other community-based resources as primary locations where individuals can obtain and interpret relevant information for career decisionmaking.

EMPLOYMENT SUPPORT

Achieving excellence requires that employers have access to a stable and expanding workforce. Stability is enhanced by access to dependable child care and by the availability of fringe benefits such as health insurance, because these allow workers to avoid financial hardship and unnecessary work absences or interruptions. Access to an expanding workforce requires new approaches to work arrangements such as flextime, shared work, and home work. These changes require reevaluation of programs and services that are not directly associated with economic development. Employer-sponsored benefits, child care, and even the organization of work are affected by state programs and regulations. Provision and licensing of child care, Medicaid administration, insurance regulation, and administration of labor standards are state responsibilities. They should be carried out in ways that respond to the changing work environment and support economic growth.

Employer-Sponsored Health Insurance. Rising health care costs have resulted in an enormous escalation of employer and employee costs for health insurance. Health care benefits constitute an increasing portion of employee compensation packages, and they have been a major focus of collective bargaining agreements during the past several years. Corporations squeezed for increased resources to invest in equipment and training are seeking ways to reduce their contributions to the health care system. Employees are losing coverage for dependents, experiencing higher cost sharing requirements, and facing reduced lifetime or illness maximum benefits. With the rise in costs, smaller employers are being closed out of the market, lessening their ability to compete with larger firms for talent.

Lack of health care coverage has become a national problem. Of the 37 million Americans uninsured, 22 million are workers and their dependents. Employer participation in the health care system is important to the individual firm competing for employees, to workers who need health care, and to society in general. There are two critical issues in maintaining employer-sponsored benefits: access to the insurance system, and affordable cost.

- ***Access.*** Insurance companies are denying services to smaller companies or to companies that present too great a risk, creating a restrictive insurance market. Seventy-five percent of insurers of small companies either are screening or planning to screen applicants, according to a recent report by the U.S. Office of Technology Assessment. Thus, some firms that can afford to provide benefits are denied access to the system.

- ***Cost.*** Insurance companies have been increasing costs in increments of as much as 30 percent annually during the last several years. This rise reflects higher health care costs, higher industry overhead costs, and cost shifting due to the fact that other payors (e.g., Medicare and Medicaid) are not paying full costs. As much as 40 percent of the premiums of small employers pays for the cost of insurance administration.

OBJECTIVE

To maintain the participation of employers in the health care system by ensuring access to coverage at an affordable cost.

STRATEGY:

Encourage the development of insurance and employer arrangements that facilitate the provision of employer-based health insurance.

States can use their authority to regulate the insurance industry, and their influence within the business community to reduce costs and form a health care benefit "pooling" system that spreads risk, reduces administrative costs, and establishes an even playing field for businesses in terms of cost and availability.

States can:

- Form state insurance risk pools for employees in high-risk occupations or those incurring high personal medical costs. Insurance companies would provide insurance to all firms and employees within an agreed-upon premium range. All insurance companies operating within the state would be required to contribute financially to the risk pool and could assign covered persons to the pool as necessary.

Connecticut has instituted a program of risk pools. Insurers commit to accepting all applicants and agree to limit the premiums that are charged to high-risk groups. Persons whose health costs become excessive are transferred to the

centrally administered pools supported by all insurance companies. This high-risk pool operates in a manner similar to high-risk automobile insurance pools.

- Form insurance pools for smaller employers. Consolidating small firms into a larger industry or association group should reduce the costs of administration. Moreover, since risk is spread over a large group insurance costs should stabilize. Insurance companies would more willingly agree to provide services to an association rather than to hundreds of individual small firms.

- Explore the possibility of returning to a system of community rating. Once the standard for the industry, community rating requires insurance companies to base rates on a community rather than a single firm. This permits the spreading of risk over a large group and stabilizes costs across employers. However, community rating also means that low-risk employers subsidize high-risk employers. To address this concern states might couple community rating with high-risk insurance pools or reinsurance mechanisms.

Employer-Sponsored Child Care. Single-parent households constitute more than one-fifth of all families. And, in more and more households, both parents work. Child care is therefore essential for large segments of the workforce. Currently, the child care system does not provide consistent services. This impedes the workforce participation of many able workers. The uneven availability of child care and the cost of privately provided care limit workforce flexibility and constrain economic growth in some areas. Care provided by family members will lessen as more family members enter the labor force and remain in it longer. Licensing practices and potential liability deter many businesses from actively pursuing the establishment of child care facilities.

To meet the growing need for child care, employers can take a number of direct actions. Businesses can help employees identify options by providing information on the availability, costs, and location of community child care services. Firms also may choose to include subsidies for child care among employee benefit packages. Many firms have elected to develop and operate job-site child care programs. To assist businesses in these efforts states can support information and referral networks, offer tax incentives, and ease regulatory restrictions to encourage employers' involvement in the provision of child care.

OBJECTIVE

To increase the involvement of employers in enhancing workers' access to child care services.

STRATEGY:

Develop a comprehensive child care policy for employer-sponsored child care.

State government can provide information and use its tax and regulatory authorities to support employers that actively seek to become involved in obtaining or providing child care for their employees. State policy should address the broad spectrum of employer involvement, ranging from companies that offer only information to those that provide job-site services.

States can:

- Provide outreach and education to employers. Employers should receive information on community child care services and on the advantages of their involvement in child care. In addition, state programs related to employer financial involvement in obtaining or delivering employee child care services should be explained.

Florida has published "Child Care is Good Business" to inform the private sector on the value of providing child care. The booklet provides guidance on topics such as on-site centers; child care center consortiums; voucher programs; tax incentives; and flexible personnel policies. "Child Care is Good Business" identifies the wide range of options available to employers and examines the pros and cons of each.

- Provide employer tax credits or incentives for firms that subsidize child care or operate job-site child care facilities for employees.

Mississippi offers a 25 percent income tax credit to any employer providing child care to employees during the employee's work hours. The credit is applied to the cost of providing the child care.

- Ensure a comprehensive state child care regulatory and licensing process.

Maryland has consolidated all child care licensing and regulatory services into a single agency in order to increase the supply of child care. Prior to the consolidation, three state agencies had authority for some aspect of child care and provider applications frequently took weeks to process.

STRATEGY:
Help employers establish job-site child care centers.

- Employers seeking to develop and operate on-site child care facilities often have a number of obstacles to overcome and issues to resolve. Among these are start-up costs and obtaining liability insurance. States should pursue a number of strategies to assist employers in overcoming these barriers to employer-provided on-site child care.

States can:

- Encourage associations of employers within communities to pool their resources to obtain child care for their employees.

- Provide start-up funds that can be used to leverage additional funding for employer job-site child care centers.

Arkansas has initiated a loan guarantee fund for the development of child care. The fund is used primarily to leverage bank loans by guaranteeing the unsecured portion of the loan. The program works in tandem with the Community Reinvestment Act that requires banks to grant loans to the community from which they draw their deposits.

Tennessee has utilized federal discretionary funds to assist a rural employer who was considering relocation due to high turnover caused by the lack of child care. Start-up capital was secured through federal Wagner-Peyser discretionary funds. The regional human resource development agency agreed to administer the job-site center, and it reserves a specified number of slots for the employer. The result is consistent child care for which employees pay just $2.00 per day.

- Provide education to employers and insurance companies on the low-risk nature of child care services with respect to liability.

- Develop systems of "assigned risk" among insurance companies to ensure access to liability insurance by child care providers. Providers would be assigned to insurance carriers on a rotating basis.

Labor Standards. Labor standards address basic worker protections and focus on issues such as occupational health and safety, workers' compensation, and unemployment insurance. The nation's system of labor standards was built upon traditional employer-employee work arrangements that are now undergoing major change. Substantial organizational flexibility is required to respond quickly to rapid changes in competitive markets. To enhance their response capability, employers are increasing their use of temporary and contract workers and reducing the number of employees who are core permanent workers. To maintain access to an experienced workforce and reduce employee layoffs during economic downturns, employers are using innovations such as work sharing. To better respond to employees' personal needs, employers are increasing their use of flexible work arrangements such as flextime and home work. These recent developments in work organization require a reexamination of state regulations to ensure continued worker protection under nontraditional work arrangements and the adoption of family-responsive work policies.

OBJECTIVE

To consider providing traditional worker protections to those employed under nontraditional work arrangements.

STRATEGY:
Revise labor standards policies to account for emerging employee-employer relationships.

The development of core employment supplemented by temporary or contract workers potentially gives rise to two classes of employees. Temporary or contract workers may face noticeable differences in the accrual of benefits from those enjoyed by permanent employees. The increasing use of home work raises issues about workers' compensation, and in some cases, occupational health and safety. States should become proactive in addressing worker protection issues as they emerge during the transition to new work arrangements.

States can:

- Provide information to employers about their responsibilities to various classes of employees working under nontraditional employment relationships.

- Restructure unemployment insurance to facilitate the use of worksharing during economic downturns. This gives employers the flexibility to reduce employees' hours of work while still keeping them on the payroll. Employees would be able to supplement their reduced earned income with partial unemployment compensation.

CONCLUSION

OBJECTIVE

To encourage the adoption of nontraditional work arrangements.

STRATEGY:
Develop family-responsive employment policies.

The increasing need for employees to balance work with family responsibilities is a major consideration in the employee-employer relationship. Firms are structuring work in a more flexible way to permit employees to meet diverse family-related needs. Given the broad social benefits that can be derived from family-responsive employment policies, state economic strategies should encourage employers to provide such arrangements.

States can:

- Provide information to firms about the advantages of flexible work structures and ways to introduce family-responsive policies into the workplace. Such information should focus on flextime, job sharing, and compressed work weeks, as well as more traditional arrangements such as part-time employment.

- Ensure that state policies do not inhibit the introduction of family-responsive policies. For example, wage and hour standards should not prevent the implementation of compressed work weeks.

- Implement family-responsive policies for state government employees to serve as a lighthouse for other employers. States should document the implementation of such programs and evaluate their success.

Restoring American world leadership in productivity requires addressing issues as diverse as job training, child care, workers' compensation, and technology deployment. State programs housed in a variety of agencies deal independently with most of these issues. For states to contribute more effectively to economic growth, changes are needed.

Since increasing productivity depends upon making multiple improvements simultaneously, states must organize themselves to provide essential services in a coordinated, comprehensive manner. Integration of services will require organizational structures that facilitate client access and awareness of needed services, regardless of the point of initial inquiry. Complementary services provided by more than one agency should be coordinated in such a way as to maximize the effect of each on increasing productivity.

States must be dedicated to improving the quality of the services that support the productivity of the economy. State government must explore ways to promote an ongoing dialogue between government and its clients, and modify its services to meet those needs. Performance management systems should be used in all programs, with performance standards providing the basis for program evaluation and funding decisions.

Finally, states must increase the productivity of state services to maximize the return on public investment. Whenever possible, public investments should leverage or complement private resources. In an era of limited resources, states should target efforts to those businesses and sectors for which state services can be most helpful in adding value to the economy.

A world-class economy will require high-performance firms and workers. Consequently, the public and private sectors must make a commitment to increase the quality of goods and services produced. For states this means integrating their human resource and economic development policies to foster an economy of excellence.

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